

JP 11-92631

4/6/99

AN 1999:225785 CAPLUS
 DN 130:325818
 TI Epoxy resin compositions having good warping, soldering, and thermal shock resistance and moldability and semiconductor devices therewith
 IN Shigeno, Kazuya
 PA Sumitomo Bakelite Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 17 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM C08L063-00
 ICS C08L063-00; C08G059-24; C08G059-32; C08G059-62; C08K003-36; H01L023-29; H01L023-31
 CC 37-6 (Plastics Manufacture and Processing)
 Section cross-reference(s): 76
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
0	PI JP 11092631	A2	19990406	JP 1997-255473	19970919
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* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title compns. for packaging semiconductors comprise (A) epoxy resins contg. 20-90% I and/or II and 10-80% cryst. epoxy resins having m.p. 50-150.degree., (B) phenolic resin crosslinking agents contg. .gtoreq.20% III, (C) 1,8-diazabicyclo[5.4.0]undecene-7, and (D) powdery fused silica, wherein R = halo or Cl-12 alkyl, l = 1-10, m = 0-3, and n = 0-4. Epikote 1032H (epoxy resin) 4.6, YX 4000H (biphenyl epoxy resin) 4.6, MEH 7500 (phenolic resin) 4.8, 1,8-diazabicyclo[5.4.0]undecene-7 0.2, spherical fused silica 85.0 parts were mixed to give a compn. showing spiral flow 103 cm, glass transition temp. 177.degree., and good warping and

soldering
resistance.

(ST) epoxy resin moldability semiconductor device packaging; thermal shock resistance epoxy resin glycidylxybenzene phenol curing agent; warping soldering resistance Epikote epoxy resin semiconductor packaging; azabicycloundecene curing accelerator fused silica epoxy resin semiconductor packaging

IT Electronic packaging materials
 Semiconductor devices

(epoxy resin compns. having good warping, soldering, and thermal shock resistance and moldability for semiconductor device packaging)

IT Phenolic resins, preparation
 Phenolic resins, preparation

RL: DEV (Device component use); IMF (Industrial manufacture); POF

(Polymer

in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(epoxy; epoxy resin compns. having good warping, soldering, and thermal

shock resistance and moldability for semiconductor device packaging)

IT Epoxy resins, preparation
 Epoxy resins, preparation

RL: DEV (Device component use); IMF (Industrial manufacture); POF
 (Polymer
 in formulation); PRP (Properties); TEM (Technical or engineered material
 use); PREP (Preparation); USES (Uses)
 (phenolic; epoxy resin compns. having good warping, soldering, and
 thermal shock resistance and moldability for semiconductor device
 packaging)

IT 6674-22-2, 1,8-Diazabicyclo[5.4.0]undecene-7
 RL: CAT (Catalyst use); USES (Uses)
 (curing accelerator; epoxy resin compns. having good warping,
 soldering, and thermal shock resistance and moldability for
 semiconductor device packaging)

IT **112755-07-4DP**, MEH 7500, polymers with phenolic resins and epoxy
 resins **174882-88-3DP**, Epikote 1032H, polymers with phenolic
 resins and epoxy resins 221891-14-1P 221902-86-9P 221902-88-1P
 221902-89-2P 222053-12-5DP, polymers with phenolic resins
 223520-71-6P
 RL: DEV (Device component use); IMF (Industrial manufacture); POF
 (Polymer
 in formulation); PRP (Properties); TEM (Technical or engineered material
 use); PREP (Preparation); USES (Uses)
 (epoxy resin compns. having good warping, soldering, and thermal shock
 resistance and moldability for semiconductor device packaging)

IT 60676-86-0, Fused silica
 RL: MOA (Modifier or additive use); USES (Uses)
 (epoxy resin compns. having good warping, soldering, and thermal shock
 resistance and moldability for semiconductor device packaging)